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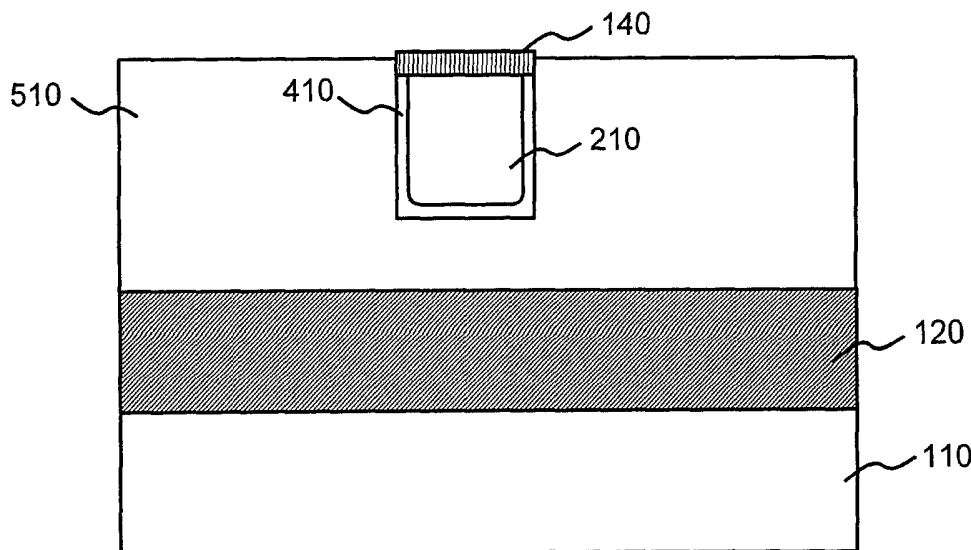
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29/786, 21/336, 29/417 (US). **WANG, Haihong**; 34170 Donahue Terrace, Fremont, CA 94555 (US).
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PCT/US2003/032663 (74) **Agent: DANIEL, R., Collopy**; Advanced Micro Devices, Inc., One AMD Place, Mail Stop 68, Sunnyvale, CA 94088-3453 (US).
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[Continued on next page]

(54) Title: SEMICONDUCTOR DEVICE HAVING A U-SHAPED GATE STRUCTURE



(57) Abstract: A double-gate semiconductor device (100) includes a substrate (110), an insulating layer (120), a fin (210) and a gate (510). The insulating layer (120) is formed on the substrate (110) and the gate (510) is formed on the insulating layer (120). The fin (210) has a number of side surfaces, a top surface and a bottom surface. The bottom surface and at least a portion of the side surfaces of the fin (210) are surrounded by the gate (510). The gate material (510) surrounding the fin (210) has a U-shaped cross-section at a channel region of the semiconductor device (100).

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 2002 043581 A (INTERNATL BUSINESS MACH CORP) 8 February 2002 (2002-02-08) figures 38,40 ---	1-4,7-10 5,6
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Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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